

# **Silver Lupine**

## ***Lupinus argenteus***



**Lupines often form large patches in well-drained soils along the forest edges at Cedar Breaks. As in other members of the pea family, bacteria “infect” the roots and form nodules. Rather than being considered a disease which harms the plant, these bacteria absorb and convert atmospheric nitrogen into nitrate fertilizer for the plant. The plant, in turn, supplies a sugar energy source to the bacteria. This relationship, in which two different life forms cooperate to the benefit of each, is called mutualism. It allows Lupines to come in and establish in infertile soils and may actually enrich the soil, allowing other species to come in as well.**

**Many different species of Lupine are found throughout the West. Most, if not all, are toxic to livestock. Lupines may become common in overgrazed areas as they are avoided by livestock which eat the more palatable species.**